

**Kentucky**  
**Agricultural Experiment Station**  
**University of Kentucky**

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**BULLETIN NO. 273**

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**HOME-CURED PORK.**

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Lexington, Ky.  
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### Home-Cured Pork.

By E. J. WILFORD

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Many Kentucky farmers prepare their own home pork supplies. Farmers who depend upon buying their cured pork from dealers instead of preparing it themselves pay a high price for it. This is due to the costs of operations from the time the live hog leaves the farm until it returns in the form of cured products. The home product, if properly handled, is just as satisfactory as any meat the farmer can buy.

In addition to furnishing the family supply of pork, farm butchering may be made a profitable method of marketing live-stock, if close attention is given to important details.

#### SELECTION OF ANIMALS

*Health.* The animals selected should be free of disease. There is always danger of transmitting certain diseases, such as tuberculosis and trichinosis, to persons who consume the meat of hogs afflicted with those diseases. The carcass of a hog slaughtered when it has a fever will not keep as well as the carcass from a normal hog. Other abnormalities may impair the keeping qualities of the meat.

*Condition* (Fatness). Select animals that are in good condition and not losing flesh at the time of slaughter. Animals putting on flesh rapidly yield the best quality of meat, because of its tenderness and flavor. Extreme condition, on the other hand, increases the lard yield, decreases the quality of the bacon, and involves "wasty" hams and shoulders.

*Quality.* Quality in meat is highly desirable. Usually the high grade or purebred animal will yield the best quality of



meat. Smooth hogs covered evenly with deep flesh will produce the nicely marbled meat, which is desired.

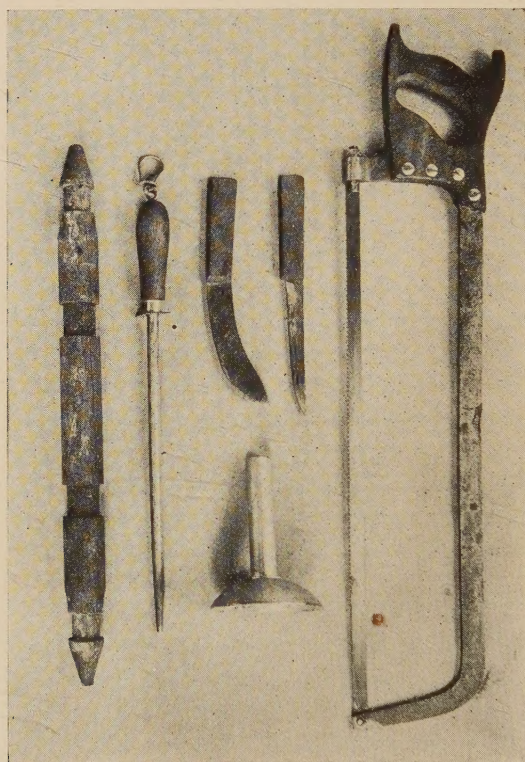


Fig. 1. Tools for killing and dressing hogs.

*Age.* Age is closely associated with quality. The carcasses of very young animals, 8 weeks to 3 months of age, are tender, but watery and lacking in flavor. Mature animals yield meat of a more desirable flavor, which, however, often is dry and tough if the animal is not fat.

*Weight.* Because of the high quality of carcass they produce, hogs weighing from 180 to 250 pounds are preferable to heavier ones. Those weighing between 160 and 200 are handy weights that have sides capable of producing prime bacon.

**TOOLS NEEDED**

Elaborate equipment is not necessary for farm butchering, but certain tools are essential in order to do good work. The following equipment is practical and economical: 1 or 2 broad

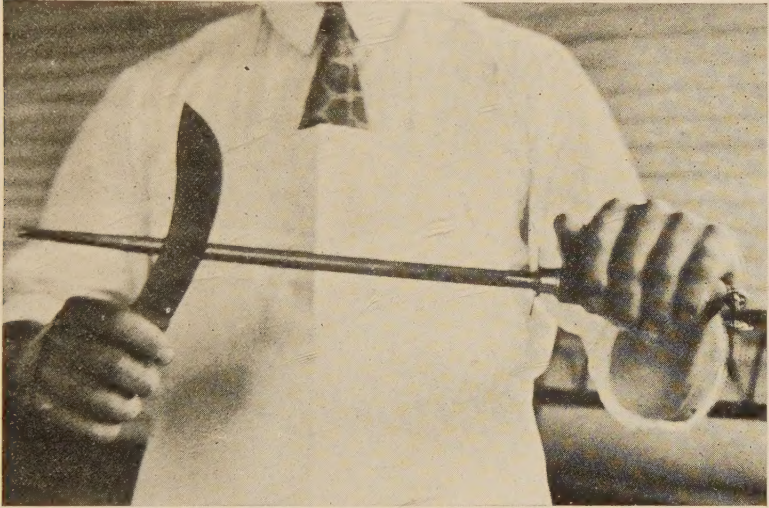


Fig. 2. Proper way to hold steel to whet the knife.

knives, 1 narrow knife, 1 steel, 1 or more gambrels (or single trees), 1 hog hook (or hay hook), 2 or more bell scrapers, soap or lye or wood ashes, scraping bench, thermometer, meat saw (or hand saw), scalding vat, scaffold, sweep or block and tackle, clean pails and tubs, clean rags, curing vats or their equivalent and curing agents.

**SHARPENING KNIVES**

Put on an evenly beveled edge of medium width with the grindstone and finish on a whetstone or oil stone. Remember that the steel is not used to sharpen the knife, but to keep it sharp. The steel is to the knife as the strop is to the razor. It should be used often, giving the knife long, light strokes.



### CARE OF THE ANIMAL

Keep the hog off feed at least 24 hours before killing, allowing it free access to water. The water keeps the hog quieter and at the same time aids in emptying the entrails, which is a great help in dressing. The animal should not be bruised or whipped, for the marks so made detract from the appearance of the carcass and bruised meat quickly deteriorates. Avoid chasing the animal, since this causes it to become overheated and, when killed in this condition, the carcass will not bleed out well. In such case, the meat will be bloody. This mars its appearance and causes it to decay quickly.

### WHEN TO BUTCHER

In Kentucky butchering usually can be done safely any time after Thanksgiving. It is not necessary to wait for freezing weather. A temperature of 36 to 38 degrees F. will be sufficiently cool. Slaughtering on days with temperature above this is not safe.

### KILLING AND DRESSING

Shooting the hog is practical only when no other method can be employed. The animal killed in this way does not bleed out well even when stuck immediately after being shot. For the same reason it is impracticable to knock the hog in the head before sticking. Throw the hog upon its back, stand astride the body just back of the hog's shoulders, grasp the forelegs and push them down and backward (see Fig. 3). In this position the hog can be held in place while another man does the sticking. More thoro bleeding is assured if the hog is hung up by the hind legs before being stuck. To stick a hog in this position, the operator grasps the hair on the side just above the shoulder. *Never* take hold of a leg, because this usually causes the hog to struggle (see Fig. 4).

*Sticking.* A narrow, sharp-pointed knife, six inches long, is excellent for sticking hogs. The incision should be made directly in front of the breastbone (see Fig. 5) with the knife pointed directly toward the root of the tail and held parallel with the backbone. The necessary depth of thrust will depend upon the size

of the hog. Hogs weighing 300 pounds or over will require the full length of the knife. The "sticker" should be extremely careful to keep the knife in direct line with the backbone or a shoulder stick will be made, which results in waste trimmings and a

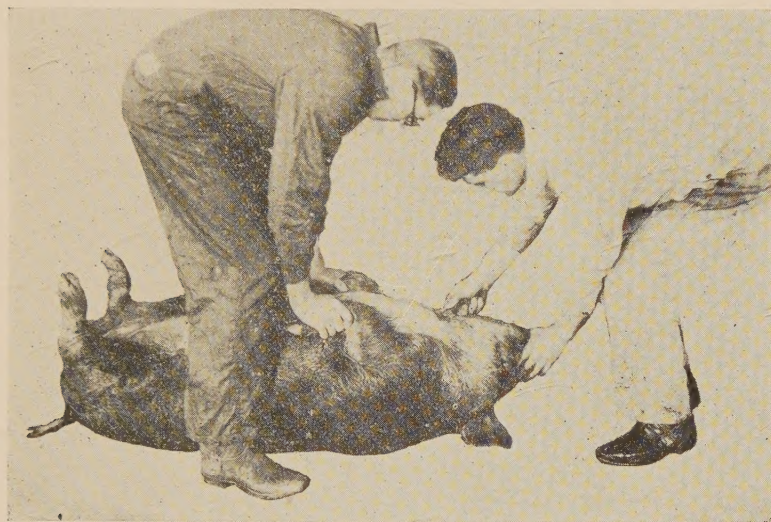


Fig. 3. Position for sticking the hog on the ground.

poor-keeping shoulder. The arteries are severed in the neck at the junction where they branch (see Fig. 5). A heart stick is difficult and undesirable, for if its muscular action is interfered with, the heart will not force the blood from the smaller blood vessels which should be thoroly drained.

*Temperature of Water.* For a barrel scald, the temperature of the water should be about 160 degrees F. Where a tank is used, however, and the temperature is somewhat under control, a temperature of 142 to 150 degree F. is very effective and safe. A temperature of 165 to 170 degrees F. is too high in either case as it will cause the hair to set, and when one has had experience with set hair he will appreciate the lower temperatures. 140 degrees F. is the minimum, even if the scalding vat is protected from the weather, and is too low for a tank outside.



*Scalding.* The handiest way to heat water for scalding a hog is to use a large tank or a regular scalding vat which is placed over a fire pit near the place of butchering. Hogs weigh



Fig. 4. Position for sticking the hog when hanging.

ing 250 pounds or less, however, can be scalded easily in a barrel, set at an angle of 45 degrees at the end of a platform which may be used as a scraping bench. To aid in removing the scurf, a heaping tablespoonful of lye for each barrel of water should be used. If lye cannot be had, a small shovelful of wood ashes or a pound of quicklime may be substituted. A slow scald is better and much safer than a quick scald.



While in water the carcass should be kept moving so that all parts will get a uniform scald. The best test to see if the scald is sufficient is to try the hair on the shanks and head with a twist-

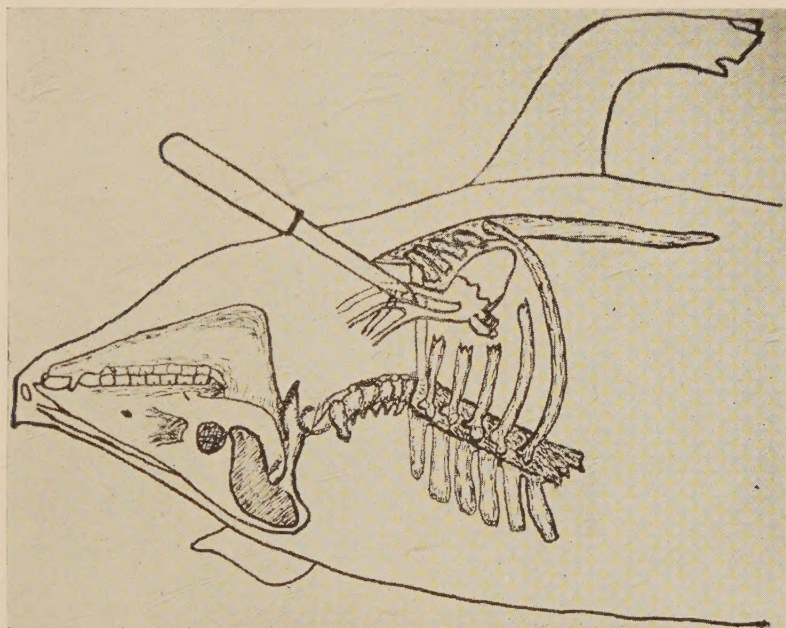


Fig. 5. Position of knife when the stick is made.

ing motion of the hand. If the hair slips easily at these places, the carcass is ready to come out. If a barrel is used, it is best to scald the rear end of the hog first, for, if the hair sets, it is much easier to remove it from the hind quarters than from the fore-quarters.

*Dehairing.* Because the hair is harder to remove from the head, feet and legs, they should be scraped first. Then, with the bell scraper on edge, using lots of pressure and straight strokes, remove the hair from the rest of the body by scraping the way the hair lies (see Fig. 6). To remove the dewclaws, place the palm of the hand or thumb on their points and press backward. The toes can be removed by inserting a hay hook beneath the

upper edge and giving a quick, hard pull. This operation should be performed as soon as possible after the carcass is removed from the water, for upon cooling the hoofs become set again.

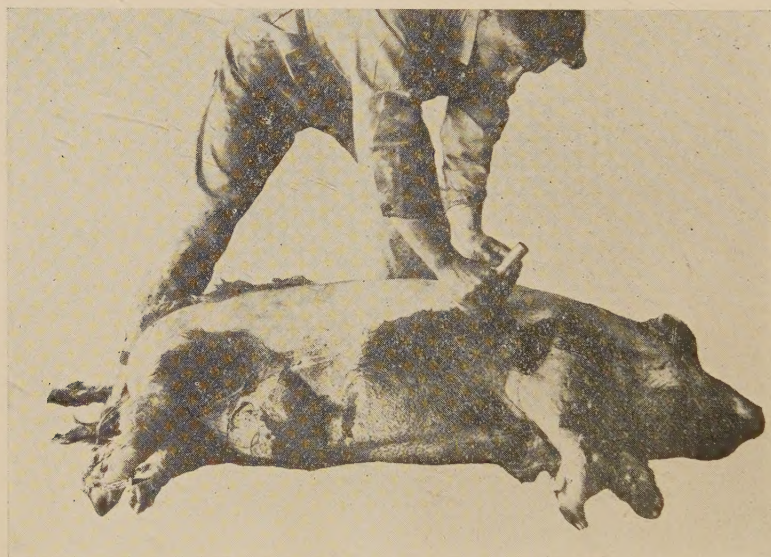


Fig. 6. Position for scraping a hog with a bell scraper.

Spots receiving a poor scald may be loosened by covering them with burlap or hair and pouring on hot water. Other instruments, such as corn knives, hoes, bricks and even the hands, are used for scraping and removing the hair.

*Cutting the Gambrel.* "Cut the gambrels" by using a sharp pointed knife. Put the thumb on the back of the knife, start at a point just below the hock and with plenty of pressure cut straight down the middle of the hind legs to a point just between the dewclaws. Care should be taken not to cut crosswise, as a cut tendon may cause extra work by breaking during the cleaning process. If a tendon is cut, be sure to aid it by using a good, stout string tied around the leg and gambrel. There are two tendons in each leg. Both tendons should be loosened, as one (especially on heavy hogs) is not sufficient to support the carcass.



Insert the gambrel stick and hang the hog up so that its head just clears the ground.

*Cleaning the Carcass.* After the hair and scurf have been removed, the carcass should be thoroly cleaned. Rinse it first with hot water. Then with sharp knives shave off the remaining hairs and scrape off as much dirt as possible. Wash off with clean, cold water and scrape again. The last scraping should be in an upward direction. This forces water out of the pores and leaves the carcass in a dryer condition than if the strokes were downward.

*Eviscerating (Gutting).* Take a sharp, narrow-bladed knife in your hand as you would a dagger (thumb up and sharp



Fig. 7. Position of the knife to start the splitting of the carcass.



Fig. 8. Position of the knife while splitting the pelvic bone A.



edge of knife down, see Fig. 7). Place the sharp edge of the knife directly between the hind legs. Cut down between the hams to the pelvic bone, which is easily split with the same stroke



Fig. 9. Position of the knife to split the breastbone (go either side of the point of the sternum bone B).



Fig. 10. The fore rib of a hog. D, sterum; E, rib; C, cartilage. A. B. line of cut to split the breastbone.

if the cut has been made in the center (see Fig. 8). Continue the cut down the mid-line of the belly, just deep enough to cut thru the fat and expose the thin membrane which covers the entrails, to the breastbone. In cutting thru the pelvic bone, be careful that the point of the knife does not cut thru far enough to puncture the colon (large intestine, see Fig. 8). Mark the mid-line but do not cut clear thru so as to let the intestines fall down in the way. Insert the knife a little to one side of the center of the point of the breastbone. Do not go deep enough to pierce the paunch (see Fig. 9) with the point of

the knife. If you go to the right of the breastbone, the knife should point toward the left (see Fig. 10). With a quick downward shove, cut thru the breastbone and continue the cut to the



Fig. 11. Position of knife to cut back of the colon.

point of the jaw. This method of splitting the breastbone is much easier and quicker than splitting with the upward cut. With a little practice the operator will be able to cut between the hams, split the pelvic bone, mark the belly and split the breastbone with a continuous movement. Whatever method is used, the breastbone should be split before the intestines are let out. If

a barrow, strip out the penis and leave it attached to the entrails.

Next grasp the knife, thumb up, with the point of the knife down and the sharp edge toward the carcass. Pull upon the penis or uterus to bring tension on the colon. Cut around the left side to the tail bone, then go to the right of the "bung" and cut back to the tail bone until the two cuts meet. The colon being very close and parallel to the backbone requires the operator to use care in making the cut between these two parts (see Fig 11). Pull the "bung" down thru the pelvic cavity before completing the opening of the belly. If the membrane which covers the intestines is too tough to split with the fingers, use the point of the knife with the edge outward. Cut between the two forefingers which are used to guard against cutting the intestines. Then by pulling gently on the large intestines and using a sharp knife lightly and carefully, one can strip out the intestines to the stomach, leaving the kidney fat in the carcass. Grasp the entrails where the gullet comes thru the diaphragm. Before continuing the cutting to loosen the lungs and trachea, loosen the liver and cut around the diaphragm, making sure that it is not attached at the breastbone. All the entrails may be removed in one mass as described above or in two operations by first removing all the organs in the abdominal cavity and then the pluck (heart, lungs and trachea). Remove the tongue from the head. Rinse out the carcass with cold water, and wash off all blood stains with a cloth dampened with lukewarm water. Remove the gall bladder from the liver and separate the heart from the pluck.

#### CUTTING UP THE CARCASS

*Removing the Head.* The head may be removed before or after the intestines are taken out. To remove the head make a cut just back of the ears clear to the backbone. If the jowl is left on the carcass (see Fig 12) the cut goes down the side of each jaw; if left on the head, the cut goes straight around the neck (see Fig. 13). In either case the head is removed at the atlas joint by cutting all muscles which support it and by separating the atlas, which is the joint next to the head. In sever-



ing the atlas joint, use the cutting edge of the knife not more than one inch back of the point, pulling down on the head at the same time. If the cut is made straight around the neck, a twist



Fig. 12. The head removed leaving jowls on the body.

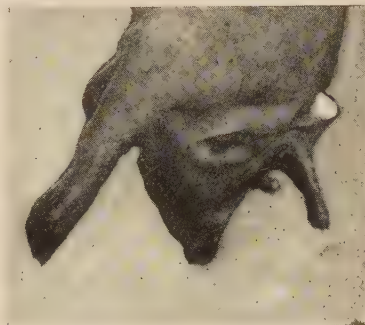


Fig. 13. The head removed leaving jowls on the head.

on the head usually will separate the joint. The head can be used if the eyes, wax cavities in the ears, the coarse hairs on the ears, and the remaining coarse hairs are removed. The head should then be washed thoroly.

*Removing the Leaf Fat.* The leaf fat (kidney fat) can be removed much easier when the carcass is warm. Grasp the lower end of the kidney fat with one hand; then give the hand a twist upward (see Figs. 14, 15, 16). With the other hand, half clinched, "fist" off the fat, being careful not to injure the bacon muscles. This operation hastens the chilling out of the carcass. This is important and should be done, in a climate like that of Kentucky.

*Facing the Hams.* By facing the hams we mean the removal of a strip of fat from the inside of the ham. Cut the fat near the flank, grasp the edge attached to the ham, and while pulling on it use a very sharp knife to cut over the face of the ham to the tail head (see Fig. 17). This fat can be removed very easily when the carcass is warm and there is very little danger of injuring the ham muscles. The amount to be removed depends upon the way you wish to have the hams trimmed. This operation exposes the ham muscles and is a material aid in cooling.



Figs. 14, 15, 16. Removing the kidney fat.

*Splitting the Carcass.* The carcass should be split so as to effect more rapid chilling. A hand saw, a meat saw or an ax may be used in splitting the backbone. Starting the cut at the



Fig. 17. Facing the ham.

rise in the backbone which is about six inches below the root of the tail, split down the middle of the backbone.

*Removing the Fat from the Intestines.* Remove the fat from the intestines while warm. Start at the stomach end, holding the fat back with one hand and stripping out the intestines



with the other. A canvas glove on the stripping hand will be of great aid.



Fig. 18. Cuts of pork: A—Ham, B—Fat back, C—Loin, D—Kidney fat, E—Bacon, F—Sparerib, G—Shoulder butt, H—Jowl, I—Clear plate, J—Shoulder (California ham), K—Feet.

*Blocking Out.* There are several different methods of cutting a pork carcass, some of which have been developed to meet local demands. Many farmers have adopted a certain method of cutting because it has been the practice in their community.

The method of cutting discussed here is one the packing houses generally use and is known as the "packer's style." Since the packer has found this method to be convenient and economical,

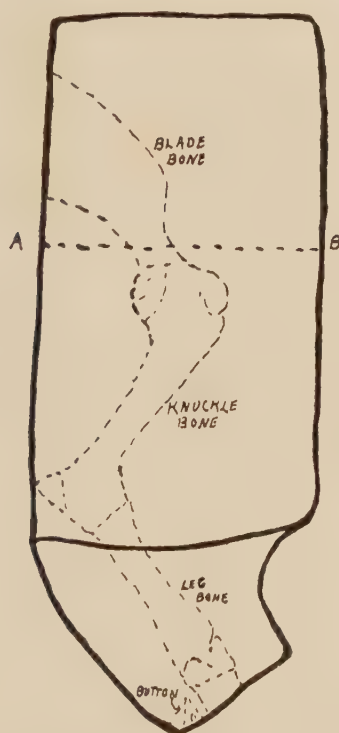


Fig. 19. The shoulder with the position of the bones shown. A, B, line of cut to make the California ham.

it should be a good method for the farmer. By this method of cutting, the backbone is split and the carcass is divided into four main portions: Head, shoulders, middles and hams (see Fig 18).

*Removing the Shoulder.* The width of the shoulder cut depends on whether a "straight shoulder" or a "California ham" (picnic) is desired. If the latter, the cut is made just back of the third rib straight across the carcass. Do not follow the rib. Make the cut perpendicular to the line of the body. The farmer usually prefers a "straight shoulder." In this case the cut is not

so wide and is usually just back of the elbow joint. The neck bones are removed, being careful not to cut too deeply; square



Fig. 20. Shoulder cuts. A—Foot, B—California ham, C—Neck spare ribs, D—Clear plate, E—Boston butt, F—Trimming.

up the jowl side, remove the top third on the “California ham” (see Fig. 19), trim off the ragged edges and round up the corners. In the “straight shoulder,” the top end is squared up and the rough edges are trimmed off. It is essential to remove all



blood clots. Cut the foot off one inch above the joint, as this makes a much neater looking shoulder. The top third of the shoulder that was removed from the "California ham" is known as the shoulder butt. This piece is divided into lean butt ("Boston Butt") and fat butt ("Clear Plate") by cutting between the outside fat layer and the inner lean portion (see Fig. 20). The lean butt makes an excellent roast. It may also be cut into chops or put into sausage.

*The Ham Cut.* About  $2\frac{1}{2}$  inches (see Fig. 21) or, approximately three fingers' width in front of the pelvic bone

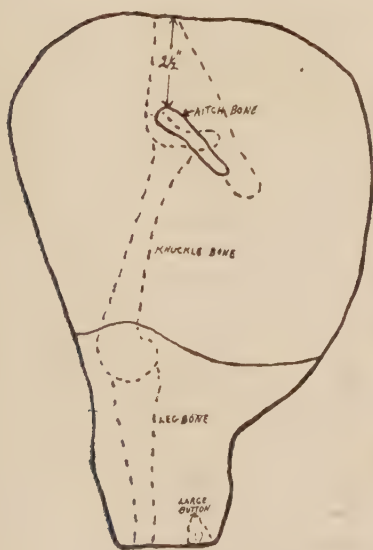


Fig. 21. The ham with the position of the bones shown.



Fig. 22. Ham cuts. A—Foot, B—Ham, C—Trimmings.

(aitch bone) is the point where the cut crosses the round bone of the ham. From the bacon side the cut to this point is perpendicular to the line of the body, while the cut from this point to the

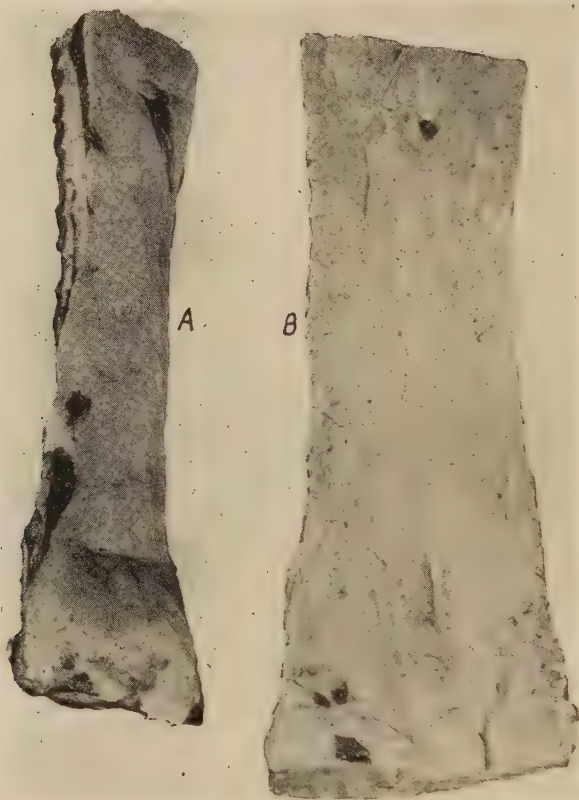


Fig. 23. Loin cuts, A—True loin, B—Fat back.

backbone side of the carcass is perpendicular to the line of the ham. Saw thru the bone and finish the cut with the knife. Trim the ham into shape and remove all surplus fat from the flesh side. Remove the foot one inch above the hock joint (see Fig. 22). When there is much fat on the outside of the ham, it is economy to trim it off and use it for lard. Leave  $\frac{1}{2}$  inch of fat

on the outside of the ham so as to keep the meat from hardening while being cured.

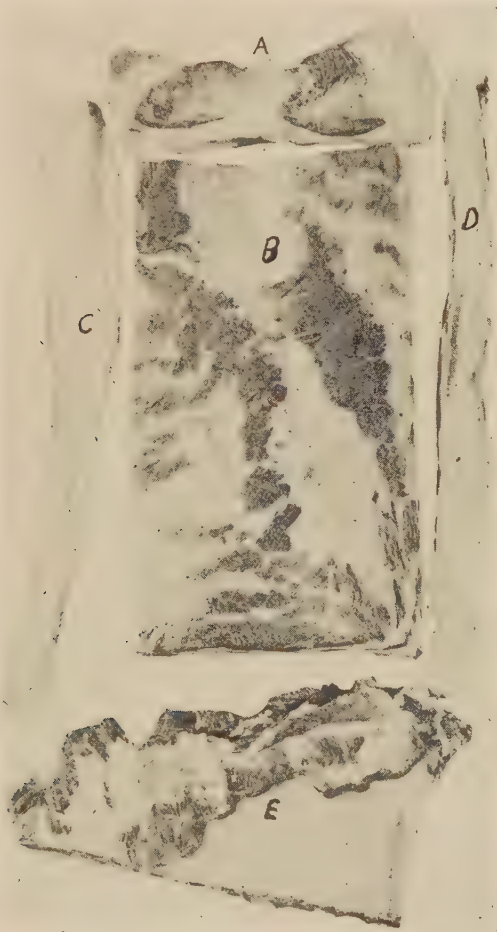


Fig. 24. Bacon cuts. A—Bacon end, B—Prime bacon, C and D—Trimming, E—Prime sparerib.

*Separating the Loin from the Bacon.* At the front end of the loin, the cut starts just below the curve in the backbone and goes to a point just below the heavy muscle at the ham end. Remove the fat back from the loin, leaving a thin layer of fat on



the outside of the loin (see Fig. 23). The middle cut in this manner furnishes a meaty piece known as the pork loin. This loin may be cut into pork chops which should be from  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch in thickness, cut across the grain of the meat and parallel to the ribs. They are cut with a knife thru the flesh portion, and with a hatchet, saw or cleaver thru the bone. The choicest chops come from the middle of the loin near the last rib. The loin can be used also for roasts if cut into pieces of convenient size. Cut the vertebrae between each rib with a hatchet or cleaver, so that the roasts will carve more easily. The loin is a poor piece to cure because of the large amount of exposed lean meat, which becomes hard and dry. However the loins may be sprinkled lightly with salt and held a short time without injuring the meat to any marked extent.

The bacon strip, which is the lower portion of the middle, is used for bacon or salt pork. Carcasses from hogs weighing about 200 pounds furnish sides that can be used for bacon, while the sides from heavier hogs usually are made into salt pork. Remove the spareribs in one piece from the "middling" by cutting close to the ribs, making them as spare as possible, thus leaving the lean on the bacon. These spareribs are known as "middle spareribs" or "prime spareribs." They are used for roasting and the ribs should be cut across with a cleaver or hatchet so as to facilitate roasting and carving. Flatten the bacon strip by pounding it with some flat instrument to remove the wrinkles before squaring up the edges (see Fig. 24). The bacon is cured and the trimmings are used for sausage and lard.

#### HOW TO PREVENT MEAT FROM SOURING

Blood in meat causes spoiling to set in quickly, therefore the animal should bleed thoroly. The next important factor is the thoro cooling of the carcass before starting the cure. The improper cooling of meat is the main cause of losses during the curing process. Facing the ham, removing the kidney fat and splitting the carcass are aids in the cooling out process. It may be necessary to block out the meat roughly to facilitate cooling. When caught by a very warm spell, some very successful butch-

ers follow the practice of putting their meat on the ground in the shade. They realize the importance of thoro cooling. *Never* put your meat into cure until it has had at least 24 hours of cooling. On the other hand, never allow it to freeze. If hogs are killed on a cold, windy day, be sure to protect the carcasses from the cold blasts to prevent the surface of the meat from cooling out too rapidly. Freezing the surface prevents the animal heat from getting away from the bone as soon as it should. In such cases, the hams will become puffed and have a marked odor in about ten days.

### CURING PORK

*Two Cures.* The two chief methods of curing meat are the brine cure and the dry cure. Both cures use salt alone or salt in combination with sugar or molasses. For Kentucky's warm and rather changeable climate, the dry cures are best. Brine is apt to become ropy. The brine cures, however, for hams are considered best where proper temperatures can be maintained, as they are in the packing houses. The brine cures can be used successfully by anybody who is willing to give the careful attention that is necessary.

*Kind of Sugar to Use.* Where sugar is recommended in the formulas, one may ask which is the better, brown or granulated. The granulated is the purest and is always used by the packers, as they know by its use there is less danger of ropy brines; but the brown may be used successfully. It imparts a little better flavor to the meat.

*Curing Agents.* The kind of agents used in curing meats has not changed since time immemorial. Salt, saltpeter and some form of sugar are the principal preservatives used in the curing of pork. One of the preserving actions of salt is to remove moisture from meat; therefore, when used alone, it has a tendency to harden the muscle fibers. Saltpeter improves the color but, being more astringent than salt, should be used sparingly. Sugar produces the opposite effect in that it assists in keeping the muscle fibers soft; therefore, combinations of the three agents make good cures.

*Containers.* Where the dry cure is used and no attempt is made to retain the meat juices, a clean table or wooden box may be used. For the brine cure, water-tight containers such as hardwood molasses or syrup barrels, stone jars, or any vessel that is galvanized will be satisfactory. All receptacles should be thoroly cleaned and scalded before being used.

*Overhaul the Meat.* It is a good policy to overhaul the meat once or twice during the process of curing. By overhauling we mean the changing of positions of the pieces of meat, those that were on top are put on or near the bottom and those on the bottom are put near the top. The changing of position assures a more uniform cure for the meat. In the dry cures, the main object is to change the pressure of the meat, for meat under pressure will not take the cure as rapidly as meat that is not. In the brine cure, the brine is stronger at the bottom than at the top.

*Starting the Cure.* Never start the cure until the meat is thoroly cooled out. Some follow the practice of completing the operations of slaughtering and preparing the meat in one day. When this is done, the meat should not be piled up. It should be spread out so that there is a free circulation of air, thus giving the meat a chance to cool out before being put into a container.

Some let the meat cool out properly, but start the salt into the meat by brisk rubbing. This causes the surface of the meat to become rather leathery in condition. If borax or saltpeter is used a hard surface is formed. This hard layer prevents the meat from taking the cure properly. The hams will cure part way in but not all the way and so the meat will spoil.

It is best always to start the meat curing by a light sprinkling of salt. Twelve to twenty-four hours after this first application, the curing mixture may be rubbed into the meat lightly or the meat may be put into a brine.

#### FORMULAS FOR CURING

*Molasses Sugar Cure.* Salt the meat down, using plenty of salt. Leave it in the salt two days per pound of ham and shoulder, one and one-half days per pound of bacon, leaving no piece

in salt for more than 28 days. Remove from salt. Brush off and wash in lukewarm water. Let drip for several hours. Smoke with hardwood until amber in color (from  $2\frac{1}{2}$  to 6 days cold smoke.)<sup>1</sup> Apply warm sorghum molasses to flesh side of meat; a day or so later make a second application of sorghum. Pepper may be mixed with the molasses if desired. Wrap with two layers of good paper; tie with cord; then wrap in muslin cloth, being sure that all openings are closed tightly to prevent the entrance of insects. Hang the meat in a dark, dry place (hams with hocks down).

*Dry Sugar Cure.* For each 100 pounds of meat, weigh out  $7\frac{1}{2}$  pounds of salt,  $2\frac{1}{2}$  pounds sugar, 2 ounces saltpeter and mix thoroly. Put  $\frac{1}{3}$  of this mixture on the meat and pack in a container; three days later rub on  $\frac{1}{2}$  of the mixture remaining and repack; three days later rub the last portion on the meat and repack. Cure hams and shoulders  $2\frac{1}{2}$  days per pound and bacon 2 days per pound. A ten-pound ham will cure in 25 days, counting the day the cure was started.

After curing remove the meat and wash it in lukewarm water. Let drip 24 hours; then smoke.

*Sugar-Brine Method.* For each 100 pounds of meat, weigh out 10 pounds of salt,  $2\frac{1}{2}$  pounds of sugar, 2 ounces of saltpeter. Dissolve the mixture in  $4\frac{1}{2}$  gallons of boiling water. Let the brine cool thoroly, then pour it over the meat. The brine should cover the meat at all times. Cure the hams and shoulders  $3\frac{1}{2}$  to 4 days per pound and bacon 3 days per pound. Remove from the brine, wash in lukewarm water, let drip 24 hours; smoke.

If brine becomes ropy, remove the meat and boil the brine. Add a little more salt before putting it back on the meat. If new brine is made put in about  $\frac{3}{4}$  as much salt as in the first place.

In weighting down the meat, do not use iron because it rusts; sandstone and tile are better.

*Plain Dry Salt Cure (Fat Backs Jowls, etc.)* Rub each piece with salt; pack in container, using 10 pounds of salt to each

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<sup>1</sup> The temperature of the smokehouse should not be very high.



100 pounds of meat. Allow the meat to remain in the salt until it is to be used.

There are many other cures similar to these, varying only slightly in the amounts of various ingredients used, or in the way they are applied, or in the length of time required for properly curing the meat.

#### PRESERVING SMOKED MEATS

As soon as the smoked meat is hard and firm it should be wrapped in heavy paper and put into muslin sacks. Wrap tightly and neatly with two layers of heavy paper, such as the butchers use, and tie securely. This done properly aids in keeping out the skipper fly (see appendix). Put the paper-wrapped meat into the muslin sacks which are tied or sewed shut. Do not run the ham string thru the paper or the muslin bag, as this prevents, to a certain extent, the closing up of the openings thru which it passes. These openings give the skipper fly and other insects access to the meat. The hanger should be sewed or tied to the outside of the muslin sack. Some say hang the ham with the hocks down, but this is not absolutely necessary. In Kentucky, with its rather changeable climate, it is sometimes necessary to wrap the meat about the middle of January, but normally, if properly wrapped by the first of March, there is little danger from the skipper fly. As a further precaution the bags should be painted with a yellow wash made up as follows:

3 pounds barium sulfate  
1 ounce glue (dry)  
1 $\frac{1}{4}$  ounces chrome yellow  
6 ounces of flour

Fill a pail half full of water and mix in the flour, stirring it thoroly to remove the lumps. Mix the chrome yellow in a quart of water in a separate vessel, add the glue and pour both into the flour and water mixture. Bring the whole to a boil and add the barium sulfate slowly, stirring it constantly. The material should be made the day before it is required. Stir it frequently while using, and apply it with a brush.\*

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\*U. S. Department of Agriculture, Farmers' Bulletin No. 1186.

**PORK SAUSAGE**

The meat used for sausage should be about three-fourths lean and one-fourth fat. For every 6 pounds of meat use  $1\frac{1}{2}$  ounces salt,  $\frac{1}{2}$  ounce black pepper and  $\frac{1}{4}$  ounce of sage or less to suit the taste. If scales are not at hand, the seasoning may be measured out for the same amount of meat as follows: 3 tablespoonfuls of salt, 2 tablespoonfuls of black pepper and 1 tablespoonful of sage. These measurements are level full, not heaping full.

The sausage may be held for several months by cooking slowly and covering it with lard. Another method is to stuff it into muslin sacks which are about 2 feet long and 4 inches in diameter. These sacks should be dipped into melted paraffin to close the pores before smoking. If the sacked sausage is smoked before dipping it has been found that the paraffin does not adhere to the sack very well. A "hotter" sausage may be made by adding red pepper.

**PICKLED PIGS' FEET**

Take well scraped pigs' feet, with the toes removed, and soak them in cold water overnight. The next morning put them into a kettle, add enough water to cover them and cook until soft. This will require about five hours. Add salt to the water during cooking. When the pigs' feet are soft, remove from the kettle and split, pack in an earthen jar and cover with hot vinegar. Spices may be added to the vinegar if desired.

**HEAD CHEESE OR SOUSE**

Head cheese is made from the part of the hog head that would otherwise be wasted. Feet, tongue and heart can be used in addition to the head. When properly prepared it is a delicacy. The head must be thoroly prepared by removing the eyes and brains and cleaning the nostrils and ears. This is best accomplished by splitting the head lengthwise between the jaw bones. Usually the jowls are removed and salted. Put the head pieces into a cooker and add enough water to cover the meat. Boil the whole until the meat parts come off readily from the bone.

Remove the meat, separate it from the bones and chop it fine. Remove the liquid from the kettle and save it for future use. After the meat is chopped, return it to the kettle and pour on enough of the liquid to cover the meat. Allow it to cook for ten or fifteen minutes. While this final cooking is taking place, season the mixture with salt and pepper to suit the taste. Put the cooked meat and the liquid that remains into jars, pans or a cold meat press, place a weight on top and allow the meat to cool. It will soon solidify and be ready to use.

#### SCRAPPLE

Scrapple usually is made from the heads and feet of hogs, but it may be made from any part of the pork carcass. If the recleaned heads are used, they should be split thru the center and placed in a cooker or kettle containing enough water to cover them. Cook until the meat separates from the bone. Take out the meat and bones and save the broth for future use. Pick all the bones from the meat, chop the meat fine, add this to the broth, and place the whole on the stove to boil. Add enough of a mixture of corn-meal and buckwheat flour to make it as thick as mush. To prevent lumpiness, the meal and flour should be mixed dry (9 measures of finely ground meal to 1 measure of buckwheat flour) and the mixture added gradually while the broth is being stirred. Stir the mixture for fifteen minutes; then allow it to cook slowly for an hour, when it should be of the consistency of thick mush. Pour the scrapple into shallow pans and allow it to cool. It may then be sliced and fried. Season to suit the taste before putting the thick mass into pans.

#### LARD

The fat should be cut into small pieces or put thru the coarse plate of the sausage mill. Extreme care must be exercised to prevent scorching lard if the skins are left on. Remove all lean meat. It sinks to the bottom of the kettle and is apt to burn and discolor the lard when cooked. Always start the fat with about a pint of water in the bottom of the kettle. Some use a little lard instead of the water. Render over a moderately



hot fire, so that the rendering process is not too slow. Do not fill the kettle too full as there is danger of boiling over and the fat coming in contact with the fire. When the pieces of fat, having a light brown color, float to the top and feel crisp when touched with the paddle, or make a crackling noise when forced against the side of the kettle, it is time to remove the cracklings. The lard should be cooled before being put into containers. Hot lard will melt solder and crack earthenware.

Some farmers have difficulty in keeping their lard, even in a cool, well ventilated place. This loss is due mainly to two things: Moisture and udder glands. It is absolutely necessary to cook all the water out of the lard before removing from the kettle. Never put the udder glands trimmed from the bacon into lard that is intended for keeping. Put the trimmings containing the udder glands in with the intestinal fat and render separately from the good fat. Never put lard into rusty containers.

#### YIELD OF LARD

Kind of Fat	% of Rendered Lard
1. Paunch .....	65
2. Intestinal .....	58
3. Fat back .....	78
4. Trimmings .....	72
5. Clear plate .....	79
6. Jowls (lean off) .....	69
7. Leaf (kidney) .....	94
Average if 3, 4, 5, 6 and 7 are mixed .....	76

That is, if you have 100 pounds of mixed fat you will render out about 76 pounds of lard. This percentage will vary somewhat, depending upon the condition of the animal and upon the kind of feed it has received.

The average for a 200-pound hog is 13-14 per cent of lard and may run as high as 20%, depending upon the condition of the animal. In other words, a 200-pound hog will render out from 26 to 40 pounds of lard, depending upon its condition and the method of trimming.

## APPENDIX

## Dressing Percentages (Head on, leaf fat in)

Wt. of Hog	% of Dressed Meat
350-400	82-84
250-300	79-82
200-250	77-80
150-200	75-77
100-150	72-76

Condition and fill are the main factors which influence the dressing out percentage. Form and quality will also affect the yield somewhat.

## THE SKIPPER

The adult is a black, two-winged fly about half the size of the housefly. Under artificial conditions the fly has been known to lay as many as thirty eggs, but investigators believe that this number would be increased under normal conditions. The egg is white and very small, being one-twenty-fifth of an inch in length, with a diameter of about one-fourth the length. Hatching takes place in about thirty-six hours, depending upon the temperature at that time. The larva is cylindrical, tapering gradually toward the front end, and is rather blunt at the rear end, furnished at this extremity with two horny, projecting stigmata and a pair of fleshy filaments. The larva completes its growth in from 7 to 10 days, attaining a length of  $1/5$  to  $2/5$  of an inch. This larva has the power to leap and is thus known as the skipper. It has been known to leap 4 inches. While feeding, if the food supply is sufficient, it does not move about much. When mature, however, it moves away to some dry spot, contracts in length, and assumes a yellowish hue. The outer skin separates from the body, the former gradually hardens and darkens into a golden brown. This resting stage lasts only about ten days then the perfect insect, the fly, emerges. The adult fly lives in the summer about ten days. It is not active at night but is able to perform its life's work in the obscurity of partially darkened closets and storerooms. Some believe that if the storerooms were made absolutely dark the skipper fly would be ex-

cluded. It does not seem able to function on fresh meat or on meat that has been salted but not smoked. However, the odor of smoked meat speedily summons it. Its entire life cycle seems to be included within three weeks. When exposed to severe and protracted cold, larvae, pupae and flies are killed. The flies speedily succumb to the fumes of burning sulfur.

To prevent the meat from becoming infested with skippers, it should be stored in dark, well ventilated storerooms. Wrap the meat properly and see that all openings in the storeroom are screened with a 24-to-the-inch wire mesh. The storerooms should be fumigated thoroly before meat is stored in them. Some whitewash the rooms, using an admixture of carbolic acid in the whitewash.







